

SUBSPECIFIC VARIATION IN SPOROBOLUS
CRYPTANDRUS

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- A. Spikelets 1.4–2.0 mm. long; grains 0.6–0.9 mm. long.
 *S. cryptandrus* ssp. *typicus*.
 B. Spikelets densely clustered (11–20 spikelet bases occur
 in a 3 x 4 mm. rectangle laid on the panicle branch) . . var. *typicus*.
 B. Spikelets loosely arranged (5–12 spikelet bases occur in
 a 3 x 4 mm. rectangle laid on the panicle branch) . . var. *occidentalis*.
 A. Spikelets 2.0–3.0 mm. long; grains 1.0–1.2 mm. long.
 *S. cryptandrus* ssp. *fuscicolus*.

SPOROBOLUS CRYPTANDRUS (Torr.) Gray, ssp. **typicus** var. **typicus**. Based on *Agrostis cryptandra* Torr. Ann. Lyceum Nat. Hist. N. Y. vol. 1: 151. 1824.

The type specimen of *S. cryptandrus* from the Canadian River in Texas or Oklahoma has been examined by Mr. Jason Swallen of the Smithsonian Institute who reports that it belongs to this phase of the species in which the spikelets are small, 1.4–2.0 mm. long, and densely crowded in the panicle (a rectangle 3 x 4 mm. placed on a branch of a pressed specimen covers the bases of 10–20 spikelets); the second glume is shorter than the lemma; the grains are 0.6–0.7 mm. long and 0.3–0.4 mm. wide, reddish brown at maturity. The mature light-green inflorescences, stems, sheaths are streaked with purple to red.

This is the more southwestern phase of the species occurring from Washington to Arizona; Montana, Wyoming, Colorado; South Dakota, Nebraska, Kansas, Oklahoma, Texas; southern Minnesota, Iowa, Missouri; southern Wisconsin, Illinois and extreme northwestern Indiana.

SPOROBOLUS CRYPTANDRUS (Torr.) Gray, ssp. **TYPICUS** var. **occidentalis** var. nov., spiculis 1.4–2.0 mm. longis, laxius dispositis in ramulis paniculae. TYPE: Bars of Snake River, Ballard's Landing (about three miles northeast of Homestead, Baker Co.), Oregon, July 8, 1899, *Cusick 2222* (in the United States National Herbarium). ISOTYPES are in Washington State College and Missouri Botanical Garden.

This is the northwestern phase of the species occurring in British Columbia, Saskatchewan; Washington, Oregon, Idaho; Montana, Wyoming, and Colorado.

The spikelets are 1.4–2.0 mm. long, loosely arranged in the panicle (5–12 spikelet bases occur in a 3 x 4 mm. rectangle); the second glume is shorter than, rarely equalling the lemma; the grains are 0.8–0.9 mm., rarely 0.6 mm. long, and 0.3–0.5 mm. wide, reddish-brown at maturity. The inflorescences, stems, sheaths may be tinged with purple to red or wholly light-green.

SPOROBOLUS CRYPTANDRUS (Torr.) Gray, ssp. **fuscicolus** (Hook.) comb. nov. *Vilfa tenacissima* var. *fuscicola* Hook. Fl. Bor.-Am. 2: 239. 1939.

This is the northern and northeastern phase of the species occurring locally along the Great Lakes and eastward to western Quebec and Massachusetts; westward through Wisconsin, Minnesota, North Dakota, Montana to Puget Sound; southward to Iowa and Missouri, South Dakota, Nebraska, Kansas, Wyoming and northern Colorado.

The spikelets are large, 2.0–3.0 mm. long, rather loosely arranged in the panicle (a rectangle 3 x 4 mm. placed on a branch of a pressed specimen covers the bases of 3–10 spikelets); the second glume usually equals or exceeds the lemma; the grains are 1.0–1.2 mm., rarely longer, 0.6–0.8 mm. wide, and commonly yellowish-brown at maturity. The fertile inflorescences are deep lead-green at maturity; the staminate panicles are olive-green.

The ranges of ssp. *fuscicolus* and var. *typicus* overlap considerably. In such cases where the two occur in the same site, the two entities may remain distinct or intermediates of various types may occur. A study of the recombinations in the region of overlap is now in process.

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TWO NEW STATES FOR TRIDENS STRICTUS.—In 1940 this grass, *Tridens strictus* (Nutt.) Nash [Syn.: *Triodia stricta* (Nutt.) Benth.] was collected in southwestern Georgia (DOUGHERTY COUNTY, *Duncan* 3091, 19 Sept., 1940. Flat, open, compact, sandy loam soil); but the fact that this was a new state-record escaped my notice. Exactly nine years later the species was collected in South Carolina (McCORMICK COUNTY, *Duncan* 10418, 19 Sept., 1949. Upland, pine-oak woods; gray, sandy loam soil; 3.1 miles S. W. of McCormick). I discovered that this *Tridens*